

What Is Claimed Is:

1. A system for network device upgrade, comprising:
a computer system for outputting a first packet and a second
packet, the first packet comprising at least version
identification for upgrade data, and the second
5 packet comprising at least the upgrade data;
a switching device connected to the computer system;
a plurality of network devices connected to the switching
device to receive the first and second packets,
receiving the first package to individually generate
10 non-repetitive IP addresses corresponding to the
computer system, selectively generating an upgrade
request according to the version identification data
in the first packet, and outputting an upgrade
request to the computer system;
15 wherein the computer system receives the upgrade request,
and outputs the second package according to the IP
addresses of the plurality of network devices, by
which the plurality of network devices is upgraded.
2. The system as claimed in claim 1, wherein the
plurality of network devices receives the second package,
compares the upgrade data therein with existing stored data, and
generates new firmware according thereto, writing the update to
5 flash memory.
3. The system as claimed in claim 1, wherein an IP address
comprises an immobile part and an alteration part, the immobile

part decided by a media access control address of a network device, the immobile part corresponding to a subnet of the
5 computer system.

4. The system as claimed in claim 1, wherein the plurality of network devices receives the first package to generate a subnet mask and a routing table, the subnet mask and the routing table corresponding to the computer system.

5. The system as claimed in claim 1, wherein the plurality of network devices comprises TCP/IP protocol network devices.

6. The system as claimed in claim 1, wherein the computer system outputs the first package to the plurality of network devices.

7. The system as claimed in claim 1, wherein version identification data of the upgrade data comprises a file name of the upgrade data.

8. A method for network device upgrade utilizing a computer system with a plurality of network devices connected thereto, comprising the steps of:

5 outputting a first package from the computer system to the
 plurality of network devices, comprising at least
 version identification corresponding to upgrade
 data;
 receiving the first package utilizing the plurality of
 network devices, wherein the plurality of network

10 devices generate non-repetitive IP addresses
 corresponding to the computer system;
selectively generating an upgrade request and outputting
 the upgrade request to the computer system for
 utilizing the plurality of network devices according
15 to the version identification data of the upgrade
 data;
outputting a second package comprising upgrade data to the
 plurality of network devices according to IP
 addresses thereof, the plurality of network devices
20 then outputting an upgrade request to the computer
 system; and
 upgrading the plurality of network devices completely
 according to the upgrade data in the second package.

9. The method as claimed in claim 8, wherein the
plurality of network devices compares the update data and
existing data stored therein to generate upgrade data, generate
new firmware according to the upgrade data, and writes the new
5 firmware to flash memory.

10. The method as claimed in claim 8, further comprising
checking a length of the version identification data of upgrade
data.

11. The method as claimed in claim 8, wherein an IP address
comprises an immobile part and an alteration part, the immobile
part decided by a media access control address of the network
device, and the immobile part corresponding to a subnet of the
5 computer system.

12. The method as claimed in claim 8, wherein in the plurality of network devices generate a subnet mask and a routing table, and the subnet mask and the routing table corresponding to the computer system.

13. The method as claimed in claim 8, wherein the plurality of network devices are TCP/IP protocol network device.

14. The method as claimed in claim 8, wherein the computer system outputs the first package to the plurality of network devices.

15. The method as claimed in claim 8, wherein comprising checking a signature of the second package for validity.

16. The method as claimed in claim 8, wherein the version identification data of the upgrade data comprises a file name of the upgrade data.

17. A method for network device upgrade for a network device utilizing an external computer system executing the upgrade, comprising the steps of:

receiving a first package, comprising at least version
5 identification corresponding to upgrade data;
generating an IP address according to the first package and
a media access control address of the network device,
the IP address corresponding to a subnet of the
computer system;

10 generating an upgrade request according to the version
 identification data of the first package, and
 outputting the upgrade request;
 receiving a second package comprising at least upgrade
 data;
15 generating upgrade data according to comparison of the
 upgrade data of the second package and existing data
 from the network device; and
 writing new firmware to flash memory, the new firmware
 generated according to existing data.

18. The method as claimed in claim 17, further comprising
checking the file size of the version identification of the
upgrade data.

19. The method as claimed in claim 17, wherein the IP
address comprises an immobile part and an alteration part, the
immobile part decided by a media access control address of the
network device, and the immobile part corresponding to a subnet
5 of the computer system.

20. The method as claimed in claim 17, further comprising
generating a subnet mask and a routing table, both corresponding
to the computer system.